AMENDMENTS

In the claims:

Please cancel claims 28, 30, and 32. Please amend claim 24, 27, 36, 37, and 38; and add claims 40-63 as shown below. For convenience, claims a clean set of currently pending claims is produced below.

1. A method for applying electrical energy to a patient's outer skin comprising:

positioning an active electrode adjacent to or near a target site on a patient's outer skin; and

applying sufficient high frequency voltage to the active electrode to remove the stratum corneum without removing the entire epidermis layer.

2. The method of claim 1 further comprising removing a layer of skin having a thickness less than about 30 microns.

3. The method of claim 1 further comprising stimulating the growth of new collagen in the patient's skin underlying the removed stratum corneum.

4. The method of claim 3 wherein the stimulating step is carried out by removing the dead skin cells from the patient's outer skin and accelerating the growth of new skin cells.

5. The method of claim 3 wherein the stimulating step is carried out by applying thermal energy to the underlying dermis and epidermis.

6. The method of claim 1 further comprising applying a high frequency voltage difference between the active electrode and a return electrode

in the presence of an electrically conductive fluid, wherein the conductive fluid generates a conductive path between the active and return electrodes.

7. The method of claim 1 further comprising maintaining a space between the active electrode and the patient's outer skin during the applying step.

8. The method of claim 7 wherein the space is at least about 0.5 mm.

9. The method of claim 7 wherein the space is at least about 1.0 mm.

10. The method of claim 6 further comprising applying a sufficient high frequency voltage difference between the active and return electrodes to vaporize a portion of the electrically conductive fluid, and to ionize the vaporized fluid into a plasma adjacent to the active electrode.

11. The method of claim 6 further comprising delivering the electrically conductive fluid to the target site during the applying step.

12. The method of claim 11 further comprising cooling the electrically conductive fluid.

13. A method for applying electrical energy to a patient's outer skin comprising:

positioning an active electrode adjacent to or near a target site on a patient's outer skin having a first outer layer and a second layer underlying the first outer layer; and

applying sufficient high frequency voltage to the active electrode to remove the first outer layer while maintaining a temperature at the exposed surface of the second layer less than about 50°C.

14. The method of claim 13 wherein the temperature at the exposed surface of the second layer is less than about 40°C.

15. The method of claim 13 wherein the first layer has a thickness in the range of about 5 to 30 microns.

16. The method of claim 13 wherein the first layer is the stratum corneum and the second layer is the epidermis.

17. he method of claim 13 further comprising stimulating the growth of new collagen in the patient's skin underlying the first outer layer.

18. The method of claim 13 further comprising applying a high frequency voltage difference between the active electrode and a return electrode in the presence of an electrically conductive fluid, wherein the conductive fluid generates a conductive path between the active and return electrodes.

19. The method of claim 13 further comprising maintaining a space between the active electrode and the first outer layer during the applying step.

20. The method of claim 19 wherein the space is at least about 1.0 mm.

21. The method of claim 18 further comprising applying a sufficient high frequency voltage difference between the active and return electrodes to vaporize a portion of the electrically conductive fluid, and to ionize the vaporized fluid into a plasma adjacent to the active electrode.

22. The method of claim 18 further comprising delivering the electrically conductive fluid to the target site during the applying step.

23. The method of claim 22 further comprising cooling the electrically conductive fluid prior to the delivering step.

24. (amended) An apparatus for applying electrical energy to a patient's outer skin comprising:

an electrosurgical instrument having a shaft with proximal and distal ends and an electrode assembly at the distal end of the shaft, the electrode assembly comprising an active electrode spaced from a return electrode;

a fluid delivery element for delivering electrically conductive fluid between the active and return electrodes, and

a power supply coupled to the electrode assembly for applying a sufficient high frequency voltage difference between the active and return electrodes to remove the stratum corneum of the patient's outer skin without removing the entire epidermis layer.

25. The apparatus of claim 24 further comprising an electrically insulating support member between the active and return electrodes.

26. The apparatus of claim 25 wherein the electrically insulating support member comprises a material selected from ceramic, glass and silicone.

27. (amended) The apparatus of claim 25 wherein the active electrode comprises a loop electrode extending from the electrically insulating support member.

29. The apparatus of claim 24 further comprising an insulating offset coupled to the distal end of the shaft and extending distal to the active electrode to space the active electrode from tissue in contact with the offset.

31. The system of claim 24 wherein the return electrode is positioned on the instrument and spaced proximally from the active electrode.

33. The system of claim 24 comprising a single active electrode terminal.

34. The system of claim 24 comprising a plurality of electrically independent active electrode terminals.

35. The system of claim 24 comprising a plurality of non-electrically independent active electrode terminals.

36. (amended) The system of claim 24 wherein the active and return electrodes are configured, upon the application of a sufficient high frequency voltage in the presence of electrically conductive fluid, to generate a plasma adjacent to the tissue.

37. (amended) The system of claim 36 wherein the plasma is generated at a location spaced a distance of about 0.05 to 1.5 mm from the tissue, wherein the active and return electrodes are configured, upon the application of a sufficient high frequency voltage in the presence of electrically conductive fluid, to accelerate ions from the plasma such that the ions contact the tissue, the ions having sufficient energy to ablate the contacted tissue.

38. (amended) The system of claim 24 further comprising an aspiration lumen having distal opening coupled to the distal end of the shaft for aspirating fluid between the active electrode and the tissue.

39. An apparatus for applying electrical energy to a patient's outer skin comprising

an electrosurgical instrument having a shaft with proximal and distal ends and an electrode assembly at the distal end of the shaft, the electrode assembly comprising an active electrode spaced from a return electrode;

a power supply coupled to the electrode assembly for applying a sufficient high frequency voltage difference between the active and return electrodes to remove the stratrum corneum of the patient's outer skin; and

wherein the electrode assembly is configured to remove the stratum corneum while maintaining a temperature at the target site below about 50°C.

--40. (new) An apparatus for applying electrical energy to a patient's outer skin comprising:

an electrosurgical instrument having a shaft with proximal and distal ends and an electrode assembly at the distal end of the shaft, the electrode assembly comprising an active electrode spaced from a return electrode;

an insulating shield coupled to the distal end of the shaft, the shield having a distal surface spaced distally from the active electrode, such that when the distal surface of the shield is adjacent to, or in contact with, tissue at a target site, the shield forms a chamber between the active electrode and the tissue; and

a power supply coupled to the electrode assembly for applying a sufficient high frequency voltage difference between the active and return electrodes to remove the stratum corneum of the patient's outer skin without removing the entire epidermis layer.

41. (new) The apparatus of claim 40 further comprising an electrically insulating support member between the active and return electrodes.

42. (new) The apparatus of claim 41 wherein the electrically insulating support member comprises a material selected from ceramic, glass and silicone.

43. (new) The apparatus of claim 41 wherein the active electrode comprises a loop electrode extending from the electrically insulating support member.

44. (new) The apparatus of claim 40 further comprising an insulating offset coupled to the distal end of the shaft and extending distal to the active electrode to space the active electrode from tissue in contact with the offset.

45. (new) The system of claim 40 wherein the return electrode is positioned on the instrument and spaced proximally from the active electrode.

46. (new) The system of claim 40 wherein the return electrode is positioned within the chamber and spaced from the active electrode.

47. (new) The system of claim 40 comprising a single active electrode terminal.

48. (new) The system of claim 40 comprising a plurality of electrically independent active electrode terminals.

49. (new) The system of claim 40 comprising a plurality of non-electrically independent active electrode terminals.

50. (new) The apparatus of claim 40 further comprising a fluid delivery element for delivering electrically conductive fluid between the active and return electrodes.

51. (new) The system of claim 50 wherein the active and return electrodes are configured, upon the application of a sufficient high frequency voltage in the presence of electrically conductive fluid, to generate a plasma within the chamber.

52. (new) The system of claim 51 wherein the plasma is generated at a location spaced a distance of about 0.05 to 1.5 mm from the tissue, wherein the active and return electrodes are configured, upon the application of a sufficient high frequency voltage in the presence of electrically conductive fluid, to accelerate ic ns from the plasma in the chamber such that the ions contact the tissue, the ions having sufficient energy to ablate the contacted tissue.

53. (new) The system of claim 50 further comprising an aspiration lumen having distal opening coupled to the chamber for aspirating fluid from the chamber.

54. (new) An apparatus for applying electrical energy to a patient's outer skin comprising:

an electrosurgical instrument having a shaft with proximal and distal ends and an electrode assembly at the distal end of the shaft, the electrode assembly comprising an active electrode spaced from a return electrode;

an electrically insulating support member between the active and return electrodes, and

a power supply coupled to the electrode assembly for applying a sufficient high frequency voltage difference between the active and return electrodes to remove the stratum corneum of the patient's outer skin without removing the entire epidermis layer; and

wherein the active electrode comprises a loop electrode extending from the electrically insulating support member.

55. (new) The apparatus of claim 54wherein the electrically insulating support member comprises a material selected from ceramic, glass and silicone.

56. (new) The apparatus of claim 54 further comprising an insulating offset coupled to the distal end of the shaft and extending distal to the active electrode to space the active electrode from tissue in contact with the offset.

57. (new) The system of claim 54 wherein the return electrode is positioned on the instrument and spaced proximally from the active electrode.

58. (new) The system of claim 54 comprising a single active electrode terminal.

59. (new) The system of claim 54 comprising a plurality of electrically independent active electrode terminals.

60. (new) The system of claim 54 comprising a plurality of non-electrically independent active electrode terminals.

61. (new) The system of claim 54 wherein the active and return electrodes are configured, upon the application of a sufficient high frequency voltage in the presence of electrically conductive fluid, to generate a plasma adjacent to the tissue.

62. (new) The system of claim 61 wherein the plasma is generated at a location spaced a distance of about 0.05 to 1.5 mm from the tissue, wherein the active and return electrodes are configured, upon the application of a sufficient high frequency voltage in the presence of electrically conductive fluid, to accelerate ions from the plasma such that the ions contact the tissue, the ions having sufficient energy to ablate the contacted tissue.

63. (new) The system of claim 54 further comprising an aspiration lumen having distal opening coupled to distal end of the shaft for aspirating fluid between the active electrode and the tissue.--

REMARKS

Claims 28, 30, and 32 are cancelled by way of this response. Claims 24, 27, 30, 36, 37, and 38 are amended herein. Claims 40-63 are added. Accordingly, claims 1-27, 29, 31, 33-63 are currently pending. Claim 39 was previously withdrawn from consideration.

Although applicant addresses the specific rejections below, applicant notes the following: 1) independent claim 24 is amended to incorporate the elements of claim 28; 2) the subject matter of claims 24 and 30, prior to the amendments made herein, are presented in newly added independent claim 40; and 3) the subject matter of 24, 25, and 27, prior to the amendments made herein, are presented in newly added independent claim 54.

35 U.S.C. §112

The Office Action rejected claim 27 under 35 U.S.C. §112, 2nd paragraph. Applicant amends claim 27 herein to address this rejection to overcome the antecedent basis rejection.

35 U.S.C. §102

The Office Action rejected claims 24, 25, and 27 under 35 U.S.C. §102(b), as being anticipated by Langberg (5,246,438). Applicant disagrees with this rejection.

Langberg fails to teach all of the elements of claim 24 prior to amendment herein. Namely, Langberg fails to teach a device comprising an electrosurgical